

or patches of sunflowers. Within territory one mile from a lake this damage does not average more than one dollar per acre; (3) The amount of damage done to corn in the milk varies as the distance of the field from a lake, slough or grove. On farms within half of a mile of a lake about 13 per cent. of the ears were damaged, on farms from a half mile to two miles distant, 5 per cent, and on those more than two miles about one and a half per cent. The average loss on farms of the first group is about four cents per acre. The greatest damage per acre disclosed by the survey was \$17.00, and this in only one instance. Accompanying the report on field investigation is one on the contents of the stomach of 43 Red-winged and 16 Yellow-headed Blackbirds from analyses made by the Biological Survey. Twenty-six per cent of the food of the former birds and 2.7% of the latter consisted of corn. In summing up the relations of lakes, bird pests and the public it appears highly preferable that direct control measures be applied to the injurious species rather than that the lakes be drained, for the latter are not only of great value as recreation places, but also are the center of abundance of numerous species of wild birds, including valuable game birds entirely dependent upon the presence of the lakes.

In general the report reviewed gives proper weight to the hunting interests, but the suggestion is repeated in many places that water-levels must be raised to discourage dense growths of water lilies, of cat-tails, rushes and of marsh as a whole. In this connection it should be kept in mind that marsh is absolutely necessary for practically all the birds which are attracted by the lakes. It is their breeding home and no matter how desirable it may be to boating or fishing interests to have more deep, clear water, the marsh must not be sacrificed or the whole value of lake conservation from the wild life standpoint will be lost.

The report includes a useful report on the vegetation of the lakes, from which a clear idea as to their wildfowl food resources can be drawn. This part of the report is unexceptionable except for insistence on the point just alluded to, namely suppression of marsh. If the demands for recreation places cannot be compromised with the necessities of wild life, it would seem necessary to assign the lakes definitely to the one purpose or the other and treat them accordingly. While saving lakes from drainage is a conservation measure, wild life will suffer practically as much from elimination of marshes as it would from drainage. In view of the advanced attitude it has already taken on the subject of lake conservation there would seem little doubt but that the State Commission will give full weight to the interests of wild life when properly presented.—W. L. M.

Bird Liming in Lower Egypt.—An interesting paper¹ with this title is here somewhat belatedly reviewed and occasion taken to present

¹ Ministry of Public Works, Zoological Service Publ. No. 28, 1919, 9 pp.

a short list of articles on bird lime, a subject concerning which information is not always easily found. The paper reviewed is by John Lewis Bonhote and has an introduction on the need for protection of birds in Egypt by Major S. S. Flower, both members of the British Ornithologists' Union. Bird liming has been carried on in Egypt for an indefinite period with no attempts at restriction until 1912. The localities where the practice is profitable are limited, being open country on the far side of bodies of water in the paths of bird migrants. Here bushes are set up which are very attractive to the birds as furnishing perches and promising food, and in these the limed rods are placed, or V-shaped flyways are constructed in tall marsh vegetation with limed sticks at the apex. When the bird catchers are undisturbed they get large numbers of birds ranging in size up to rollers and turtle doves. The lime is made from pulp of the fruit of *Cordia mixta*. On account of cruelty connected with the practice of bird-liming, the fact that most of the birds captured are beneficial, and the illegality of the whole traffic, strenuous efforts have been made to break it up.

The following references to information on bird lime and its use are submitted. Treatments in encyclopedias are not included, but it is worth mentioning that the principal works of this class contain a fair amount of information on the subject.

Abbey, George. The Balance of Nature and Modern Conditions of Cultivation, 1909, pp. 188-190.

Anon. Bird-Lime Manufacture in Japan. Chicago Field, Vol. 8, No. 16, Dec. 1, 1877, p. 265.

C., T. Bird-lime. American Sportsman, Vol. 4, No. 16, July 18, 1874, p. 253.

Carnegie, W. Practical Trapping of Vermin and Birds. Third Ed. pp. 62-65.

Drieberg, C. Field Rats in Cultivated Land. The Tropical Agriculturist (Ceylon) Vol. 25, 1906, pp. 875-6.

Phillips, Coleman. Small Bird Nuisance. Conference of New Zealand Fruitgrowers, etc. Dunedin, June 1901. N. Z. Dept. Agr. p. 37.

The various substances reported to be used in the manufacture of bird-lime include; inner bark of European holly and of the mochi tree of Japan, presumably the whole plants of mistletoe and distaff thistle, fruits of the genus *Cordia*, wheat flour, linseed and fish oils and Venice turpentine.—W. L. M.

The Ornithological Journals

Bird-Lore. XXII, No. 4. July-August, 1920.

Photography of the Scarlet Tanager. By C. W. Leister.—An admirable series of pictures of a very difficult subject.